

## **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

1. (Currently Amended) A cooling roll for manufacturing a ribbon-shaped magnetic material by colliding a molten alloy to a circumferential surface of the cooling roll so as to cool and then solidify the alloy, the cooling roll comprising:

dimple correcting means defined by a plurality of ridges provided on the circumferential surface of the cooling roll for dividing dimples that are produced on a roll contact surface of the cooling roll,

wherein the plurality of ridges are provided by forming a plurality of of grooves at an angle less than or equal to 30° relative to an edge of said cooling roll with an average width of 0.5 – 90 μm in the circumferential surface of the cooling roll, the width of the grooves preventing the molten alloy from entering the groove, and each ridge including a plurality of discontinuous, discreet, and spaced apart regions; and

wherein the ratio of the area of the grooves with respect to the area of the circumferential surface when they are projected on the same plane is in the range of 30 – 99.5%.

2. (Original) The cooling roll as claimed in claim 1, wherein the cooling roll includes a roll base and an outer surface layer provided on an outer peripheral portion of the roll base, and the outer surface layer has said dimple correcting means.

3. (Previously Presented) The cooling roll as claimed in claim 2, wherein the outer surface layer of the cooling roll is formed of a material having heat conductivity lower than the heat conductivity of the structural material of the roll base at room temperature.

4. (Original) The cooling roll as claimed in claim 2, wherein the outer surface layer of the cooling roll is formed of a ceramic.

5. (Previously Presented) The cooling roll as claimed in claim 2, wherein the outer surface of the cooling roll is formed of a material having a heat conductivity equal to or less than  $80 \text{ Wm}^{-1}\text{K}^{-1}$  at room temperature.

6. (Currently Amended) The cooling roll as claimed in claim 2, wherein the outer surface layer of the cooling roll is formed of a material having a coefficient of thermal expansion in the range of  $3.5 - 18 \times 10^{-6} \text{ K}^{-1}$  ( $\times 10^{-6} \text{ K}^{-1}$ ) at room temperature.

7. (Original) The cooling roll as claimed in claim 2, wherein the average thickness of the outer surface layer of the cooling roll is 0.5 to 50  $\mu\text{m}$ .

8. (Original) The cooling roll as claimed in claim 2, wherein the outer surface layer of the cooling roll is manufactured without experiencing a machining process.

9. (Cancelled)

10. (Previously Presented) The cooling roll as claimed in claim 1, wherein the average width of the ridge of 0.5 -95  $\mu\text{m}$ .

11. (Cancelled)

12. (Cancelled)

13. (Previously Presented) The cooling roll as claimed in claim 1, wherein the average height of the ridge or the average depth of the groove is 0.5 - 20  $\mu\text{m}$ .

14. (Previously Presented) The cooling roll as claimed in claim 1, wherein the ridge or groove is formed spirally with respect to the rotation axis of the cooling roll.

15. (Previously Presented) The cooling as claimed in claim 1, wherein the at least one ridge or groove includes a plurality of ridges or grooves which are arranged in parallel with each other through an average pitch of 0.5 – 100  $\mu\text{m}$ .

16. (Previously Presented) The cooling roll as claimed in claim 1, wherein the ratio of the projected area of the ridge or groove with respect to the projected area of the circumferential surface is equal to or greater than 10%.

17.-29.(Cancelled)

30. (Previously Presented) The cooling roll as claimed in claim 1, wherein a cross-section of the grooves is square-shaped.

31. (Previously Presented) The cooling roll as claimed in claim 1, wherein a cross-section of the grooves is triangle-shaped.

32. (Previously Presented) The cooling roll as claimed in claim 1, wherein a cross-section of the grooves is round-shaped.

33. (Previously Presented) A cooling roll for manufacturing a ribbon-shaped magnetic material, comprising:

dimple correcting means defined by a plurality of ridges provided on a circumferential surface of the cooling roll for dividing dimples that are produced on a roll contact surface of the cooling roll.

wherein the plurality of ridges are provided by forming at least two spiral grooves of which a direction of each spiral groove is different so that the grooves intersect on the circumferential surface of the cooling roll, the grooves having an average width of 0.5 – 90  $\mu\text{m}$  to prevent a molten alloy of the magnetic material from entering the groove; and

a ratio of an area of the grooves with respect to an area of the circumferential surface when they are projected on the same plane is in the range of 30 – 99.5%.

34. (Previously Presented) The cooling roll of claim 22, wherein each spiral groove has angle relative to an edge of the cooling roll that is less or equal to  $30^{\circ}$ ; and the angle of each spiral groove is different.

35. (Previously Presented) The cooling roll as claimed in claim 33, wherein a cross-section of the grooves is square-shaped.

36. (Previously Presented) The cooling roll as claimed in claim 33, wherein a cross-section of the grooves is triangle-shaped.

37. (Previously Presented) The cooling roll as claimed in claim 33, wherein a cross-section of the grooves is round-shaped.